SONY

3-095-629-**13**(2)

Wireless Stereo Headphone System

Operating Instructions

MDR-RF840RK
MDR-RF860RK

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WARNING

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

To reduce the risk of fire or electric shock, do not place objects filled with liquids, such as vases, on the apparatus.
To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.
Connect AC power adaptor to an easily accessible AC outlet. Should you notice an abnormality in AC power adaptor, disconnect it from the AC outlet immediately.
Do not install the appliance in a confined space, such as a bookcase or built-in cabinet.
Do not expose the battery to excessive heat such as direct sunlight, fire or the like.

The nameplate is located on the bottom exterior.

CE

Hereby, Sony Corp., declares that this equipment is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
For details, please access the following URL :
http://www.compliance.sony.de/

Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local Civic Office, your household waste disposal service or the shop where you purchased the product.

Disposal of waste batteries (applicable in the European Union and other European countries with separate collection systems)

This symbol on the battery or on the packaging indicates that the battery provided with this product shall not be treated as household waste.
On certain batteries this symbol might be used in combination with a chemical symbol. The chemical symbols for mercury (Hg) or lead (Pb) are added if the battery contains more than 0.0005% mercury or 0.004% lead.
By ensuring these batteries are disposed of correctly, you will help prevent potentially negative consequences for the environment and human health which could otherwise be caused by inappropriate waste handling of the battery. The recycling of the materials will help to conserve natural resources.

In case of products that for safety, performance or data integrity reasons require a permanent connection with an incorporated battery, this battery should be replaced by qualified service staff only.
To ensure that the battery will be treated properly, hand over the product at end-of-life to the applicable collection point for the recycling of electrical and electronic equipment.

For all other batteries, please view the section on how to remove the battery from the product safely. Hand the battery over to the applicable collection point for the recycling of waste batteries.

For more detailed information about recycling of this product or battery, please contact your local Civic Office, your household waste disposal service or the shop where you purchased the product.

Do not expose batteries or apparatus with battery installed to excessive heat such as sunshine fire or the like.

Notice for customers: the following information is only applicable to equipment sold in countries applying EU directives.
The manufacturer of this product is Sony Corporation, 1-7-1 Konan Minato-ku, Tokyo, 108-0075 Japan. The Authorized Representative for EMC and product safety is Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Germany. For any service or guarantee matters, please refer to the addresses given in separate service or guarantee documents.

Welcome!

Thank you for purchasing the Sony MDR-RF840RK/RF860RK Wireless Stereo Headphone System. Before operating the unit, please read this manual thoroughly and retain it for future reference.
Some features are:
- A compact transmitter enables simple charging by a contactless charge method that requires no terminals by the electromagnetic induction. Just by placing the headphones on the transmitter, the headphone battery can be charged.
- Automatic ON/OFF function on headphones to preserve battery power.
- Noise reduction system to reproduce a clear sound with minimum transmission noise (MDR-RF860RK only).
- Wireless system that allows you to listen to a program free from the restriction of a cord.
- High fidelity sound reproduction.
- Easy connection with TV and HiFi Audio system equipment.
- Up to 100 meters reception range.
- Volume control function on the headphones.
- Comfortable Circum-aural headphone with self adjusting head band.

Notes on receiving performance

This system utilizes very high frequency signals in the 800 MHz band so the receiving performance may deteriorate due to the surroundings. The following examples illustrate conditions that may reduce the reception range or cause interference.
- Inside a building with walls containing steel beams.
- An area with many steel file cabinets, etc.
- An area with many electrical appliances capable of generating electromagnetic fields.
- The transmitter is placed on a metal instrument.
- An area facing a roadway.
- Noise or interfering signals exist in the surroundings due to radio transceivers in trucks, etc.
- Noise or interfering signals exist in the surroundings owing to wireless communication systems installed along roadways.

► *Getting started*

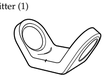
Unpacking

Check that you have the following items:

- The headphones (1)



- The transmitter (1)



- AC power adaptor (1)



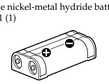
- Connecting cord (1) (phono plugs ⟷ stereo miniplug), 1 m



- Unimatch plug adaptor (1) (stereo mini jack ⟷ stereo phone plug)



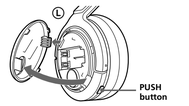
- Rechargeable nickel-metal hydride battery BP-HP550-11 (1)



Charging the supplied rechargeable battery

The supplied rechargeable nickel-metal hydride battery is not charged from the first time you use it. Be sure to charge it before use.
To charge the headphones, place them on the transmitter.

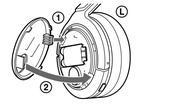
1 Press the PUSH button of the left housing to open the battery compartment lid.
The battery compartment lid comes off.



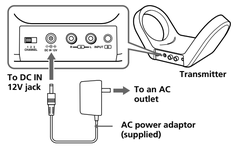
2 Insert the supplied rechargeable nickel-metal hydride battery into the battery compartment matching the ⊕ terminal on the battery to the ⊕ mark in the compartment.
Do not use rechargeable battery other than the supplied one.



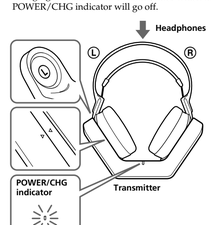
3 Close the battery compartment lid.
①Insert the tab into the hole at the upper left.
②Close the lid until it clicks.



4 Connect the supplied AC power adaptor to the transmitter.



5 Rest the headphones on the transmitter so that the transmitter's POWER/CHG indicator lights in red.
Please place the headphones on the transmitter so that the triangle arrow would be matched. If the headphones are not properly placed, it will not be charged.
Charging will take about 16 hours, after which the POWER/CHG indicator will go off.

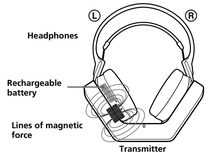


About the charging method of the system
This system employs a contactless charge method that requires no terminals by the electromagnetic induction.

Notes
- Do not leave any metallic objects (coin, clip, etc.) near the transmitter's charging point. The transmitter and the metal might become hot and it is dangerous.



- Do not leave any objects susceptible to magnetism (cash cards, floppy disks with magnetic coding, etc.) near the system. Exposure to the transmitter's electromagnetic field may render them unusable.



- Do not place a radio near the system. A noise may be heard from the radio. In such a case, change the angle of the radio or move away from the system so that a noise is not heard.

When the transmitter's POWER/CHG indicator does not light up red
Check if the right and left headphones are rested on the transmitter correctly. Remove the headphones and replace them on the transmitter again so that the POWER/CHG indicator lights in red.

To recharge the headphone battery after use
Place the headphones on the transmitter after use. Since the built-in timer recognizes when charging is complete, there is no need to remove the headphones from the transmitter after charging.

Notes
- The transmitter automatically stops sending RF signals while charging the battery.
- This system is designed to charge only the supplied rechargeable battery type BP-HP550-11 for safety. Note that other types of rechargeable batteries cannot be charged with this system.
- If dry batteries are installed, they cannot be charged.
- Do not attempt to use the supplied BP-HP550-11 rechargeable battery for other components. They are for use with this system only.
- Charge in an environmental temperature of between 0 °C and 40 °C (between 32 °F and 104 °F).

Charging and usage hours

Approx. charging hours*1	Approx. usage time*1	
	MDR-RF840RK	MDR-RF860RK
1 hour	60 minutes*2	40 minutes*2
16 hours*2	18 hours*3	14 hours*3

*1 at 1 kHz, 1 mW+1 mW output
*2 hours required to fully charge an empty battery
*3 Time stated above may vary, depending on the temperature or conditions of use.

Using the headphones with dry batteries (sold separately)
Commercially available (size AAA) dry batteries can also be used to power the headphones. Install the batteries in the same manner as described in steps 1 through 3 of "Charging the supplied rechargeable battery."
When dry batteries are installed, the battery charge function will not be activated.

Battery life
(Using Sony alkaline batteries LR03/AM-4 (N))

Model	Approx. hours*1
MDR-RF840RK	28 hours*2
MDR-RF860RK	22 hours*2

*1 at 1 kHz, 1 mW+1 mW output
*2 Time stated above may vary, depending on the temperature or conditions of use.

Notes on Batteries
- Do not charge a dry battery.
- Do not carry a dry battery together with coins or other metallic objects. It can generate heat if the positive and negative terminals of the battery accidentally come into contact with metallic objects.
- If you are not going to use the unit for a long time, remove the batteries to avoid damage from battery leakage or corrosion.

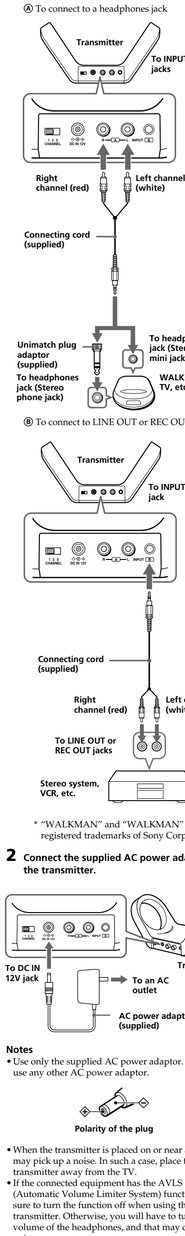
Checking the remaining battery power
Pull up the self-adjusting band and check the POWER indicator located on the right housing. The battery is still serviceable when the indicator lights in red. Charge the rechargeable battery or install new dry batteries if the POWER indicator light dims, flashes, or the sound becomes distorted or noisy.

Note
The rechargeable nickel-metal hydride battery should be replaced with new one when they last only half the expected time after a proper recharging. The rechargeable battery type BP-HP550-11 is not commercially available. You can order the battery from the store where you purchased this system, or at your nearest Sony dealer.

Setting up the transmitter

1 Connect the transmitter to audio/video equipment.
Select one of the hookups below depending on the jack type:

Ⓐ To connect to a headphones jack



Ⓑ To connect to LINE OUT or REC OUT

* "WALKMAN" and "WALKMAN" logo are registered trademarks of Sony Corporation.

2 Connect the supplied AC power adaptor to the transmitter.

Notes
- Use only the supplied AC power adaptor. Do not use any other AC power adaptor.

- When the transmitter is placed on or near a TV, it may pick up a noise. In such a case, place the transmitter away from the TV.
- If the connected equipment has the AVLS (Automatic Volume Limiter System) function, be sure to turn the function off when using the transmitter. Otherwise, you will have to turn up the volume of the headphones, and that may cause noise.

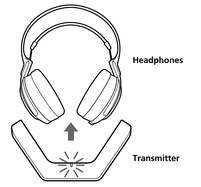
► *Operating the system*

Listening to a programme

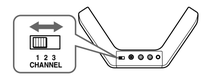
Before listening
To reduce the risk of hearing damage, first lower the volume.

1 Turn on the audio/video equipment connected to the transmitter.
If the transmitter is connected to the headphone jack, set the volume control of the audio source equipment as high as possible but not so high that the audio signal becomes distorted.

2 Remove the headphones from the transmitter.
The transmitter's POWER/CHG indicator lights up green.



3 Select the radio frequency with the CHANNEL selector switch.

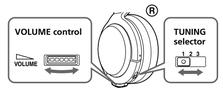


4 Put on the headphones.
When you put on the headphones, the headphone's power turns on automatically.
The POWER indicator on the right housing glows red.
Be sure to put the right housing Ⓡ on your right ear and the left housing Ⓛ on your left ear.
Wear the headphones vertically on your head so that auto power on function is properly activated.

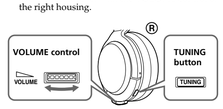


5 Set the channel to that of the transmitter with the selector (or button) on the right housing of the headphones.

Ⓐ MDR-RF840RK
Select the channel to that of the transmitter with the TUNING selector on the right housing of the headphones.
When tuning has completed, turn up the volume to a moderate level with the VOLUME control on the right housing.



Ⓑ MDR-RF860RK
Press the TUNING button briefly for automatic tuning of the headphones. If you do not receive a clear audio signal, press it again.
When tuning has completed, turn up the volume to a moderate level with the VOLUME control on the right housing.



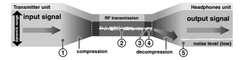
Sending RF signals from the transmitter
The transmitter starts sending RF signals automatically when it detects an audio signal from the connected equipment.
If it does not detect an audio signal for more than about 4 minutes, the transmitter will stop sending RF signals, and the POWER/CHG indicator will turn off. When the transmitter receives an audio signal again, it starts sending the RF signals, and the POWER/CHG indicator will light up green again.
If the audio signal is very weak, the transmitter does not send RF signals. If the transmitter is connected to a headphone jack, make sure the volume of the equipment connected is set to 5 - 6 or higher.
You may not hear the beginning of the sound from the headphones until the transmitter starts sending the RF signals after detecting an audio signal.

The headphones automatically turn off when they are taken off – Auto power on/off function
Do not pull up the self-adjusting band when not in use, as this will consume the battery power.



Notes
- If hiss is heard, move closer to the transmitter.
- You may hear some noise when you disconnect the AC power adaptor from the transmitter before turn off the headphones.

Noise Reduction process (MDR-RF860RK only)
The transmitter unit compresses the audio signal and converts it to RF signal. The headphones unit converts the received RF signal to an audio signal and decompresses it.
This process reduces noise picked up during transmission.



① The transmitter unit compresses the audio signals dynamic range, then converts it to RF signal.
② Noise may occur due to long distance transmission, etc.
③ The headphones unit converts the RF signal to an audio signal.
④ Noise may occur during conversion.
⑤ Decompression of the audio signals dynamic range reduces the noise level and improves the S/N (signal-to-noise) ratio.

The effective areas of the transmitter

The optimum distance is up to approximately 100 m without the system picking up some interference. However, the distance may vary depending on the surroundings and environment. If the system picks up some noise within the above mentioned distance, reduce the distance between the transmitter unit and the headphones, or select another channel.

Notes
- When you use the headphones inside the effective areas of the transmitter, the transmitter can be placed in any direction from the listener.
- Even within the signal reception area, there are some spots (dead spots) where the RF signal cannot be received. This characteristics is inherent to RF signals, and does not indicate malfunction. By slightly moving the transmitter, location of the dead spot can be changed.

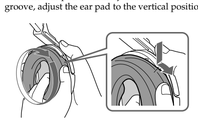
Replacing the ear pads

The ear pads are replaceable. If the ear pads become dirty or worn out, replace them as illustrated below. The ear pad is not commercially available. You can order replacements from the store where you purchased this system, or at your nearest Sony dealer.

1 Remove the old ear pad by pulling it out of the groove on the housing.



2 Place the new ear pad on the driver unit.
Hang the edge of the ear pad on one side of the driver unit's groove edge, then turn the edge of ear pad around the driver unit as illustrated below.
When the ear pad is securely inserted into the groove, adjust the ear pad to the vertical position.



► *Additional information*

Precautions

- If the transmitter is not to be used for a long period of time, disconnect the AC power adaptor from the AC outlet by holding the plug. Do not pull on the cord.
- Do not leave the wireless stereo headphone system in a location subject to direct sunlight, heat or moisture.

Notes on headphones

To reduce the risk of hearing damage
- Avoid using headphones at high volume. Hearing experts advise against continuous, loud and extended play. If you experience a ringing in your ears, reduce the volume or discontinue use.
- Excessive sound pressure from headphones can cause hearing loss.

Caring for others
Keep the volume at a moderate level. This will allow you to hear outside sounds and to be considerate to the people around you.

If you have any questions or problems concerning the system that are not covered in this manual, please consult your nearest Sony dealer.

Be sure to bring the headphones and the transmitter to the Sony dealer when requiring repair work.

Troubleshooting

No sound/Muffled sound
→ Check the connection of the audio/video equipment or the AC power adaptor.
→ Check that the audio/video equipment is turned on.
→ Turn up the volume on the connected audio/video equipment, if the transmitter is connected to the headphones jack.
→ Change the radio frequency with the CHANNEL selector switch on the transmitter, then set to the same radio frequency with the TUNING selector (or TUNING button) on the right housing of the headphones.
→ The mute function is activated.
• Use the headphones near the transmitter.
→ The headphones' POWER indicator light turns off, dims, flashes, or sound becomes distorted or noisy.
• Charge the rechargeable battery if it is weak, or replace alkaline batteries with new ones. If the POWER indicator is still off after charging the battery, take the headphones to a Sony dealer.

Distortion
→ If the transmitter is connected to the headphones jack, turn down the volume on the connected audio/video equipment.
→ Change the radio frequency with the CHANNEL selector switch on the transmitter, then set to the same radio frequency with the TUNING selector (or TUNING button) on the right housing of the headphones.
→ The headphones' POWER indicator light turns off, dims, flashes, or sound becomes distorted or noisy.
• Charge the rechargeable battery if it is weak, or replace alkaline batteries with new ones. If the POWER indicator is still off after charging the battery, take the headphones to a Sony dealer.

Loud background noise
→ Move closer to the transmitter. As you move away from the transmitter, more noise is likely to be heard.
→ If the transmitter is connected to the headphones jack, turn up the volume of the connected audio/video equipment.
→ Change the radio frequency with the CHANNEL selector switch on the transmitter, then set to the same radio frequency with the TUNING selector (or TUNING button) on the right housing of the headphones.
→ The headphones' POWER indicator light turns off, dims, flashes, or sound becomes distorted or noisy.
• Charge the rechargeable battery if it is weak, or replace alkaline batteries with new ones. If the POWER indicator is still off after charging the battery, take the headphones to a Sony dealer.

Specifications

General

Carrier frequency	863.52 MHz, 864.02 MHz, 864.52 MHz
Channel	Ch1, Ch2, Ch3
Modulation	FM stereo
Frequency response	MDR-RF840R: 20 – 20,000 Hz MDR-RF860R: 10 – 22,000 Hz

Transmitter TMR-RF840R, RF860R

Power source	DC 12 V: supplied AC power adaptor
Audio input	Phono jacks, stereo mini jack
Dimensions	Approx. 216 × 105 × 96 mm (8 5/8 × 4 1/4 × 3 7/8 in) (w/h/d)
Mass	Approx. 220 g (7.77 oz)
Rated power consumption	3 W

Headphones MDR-RF840R, RF860R

Power source	Supplied rechargeable nickel-metal hydride battery BP-HP550-11 or commercially available (size AAA) dry batteries
Mass	Approx. 300 g (10.59 oz) incl. Battery

Design and specifications are subject to change without notice.